
CURRICULUM VITAE

R.W. TREWYN, Ph.D.

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EDUCATION:

Oregon State University, Corvallis, Oregon; Ph.D., 1974
(Major: Microbial Physiology. Minors: Biochemistry and Genetics)
University of Wisconsin, Whitewater, Wisconsin; B.S., Magna cum Laude, 1970
(Major: Biology. Minor: Chemistry)
University of Hawaii, Honolulu, Hawaii; 1965-67
(Major: Zoology. Minor: Chemistry)
Rockford School of Business, Rockford, Illinois; 1961-63
(Graduated in Accounting)

PROFESSIONAL EXPERIENCE:

Vice Provost for Research and Dean of the Graduate School, Kansas State University, 1998-present
President, Kansas State University Research Foundation, 1995-present
Professor, Division of Biology, Kansas State University, 1994-present
Associate Vice Provost for Research, Kansas State University, 1994-98
Professor, Department of Medical Biochemistry, Ohio State University, 1988-94
Director, Biochemistry Graduate Program, Ohio State University, 1989-91; 1993-94
Associate Professor, Department of Medical Biochemistry, Ohio State University, 1983-88
Director, Tissue Procurement Service, Comprehensive Cancer Center, Ohio State University, 1980-92
Assistant Professor, Department of Medical Biochemistry, Ohio State University, 1978-83
Instructor, Department of Biochemistry, Biophysics, and Genetics, University of Colorado Health Sciences Center, 1977-78
Research Associate, Department of Biochemistry, Biophysics, and Genetics, University of Colorado Health Sciences Center, 1974-77

SUPPLEMENTAL EXPERIENCE:

Co-Founder and Trustee, Center for the Study of Veterans in Society, Milford, Ohio [a not-for-profit, 501(c)(3) research organization], 1992-present
Commissioner [judicial appointment], Franklin County Veterans Service Commission [1992-94
Scientific Consultant, Research Advisory Board, Jarrow-Lloyd Pharmaceuticals, Inc., Columbus, Ohio, 1989-93
Member, Board of Trustees, Ohio Cancer Research Associates, Columbus, Ohio, 1984-88
Scientific Consultant, Board of Directors, Pharmaceutical and Toxicological Research Institute, Ohio State University, 1984-86
Accountant, Hometown, Inc., Milwaukee, Wisconsin, 1963-64

PROFESSIONAL SOCIETIES:

American Association for the Advancement of Science (active membership)
American Association for Cancer Research (elected membership; inactive)
American Society of Biochemistry and Molecular Biology (elected membership; inactive)
Association of University Technology Managers (active membership)
Council on Governmental Relations (active membership)
Sigma Xi (elected membership; inactive)

EXTRAMURAL GRANT SUPPORT:

American Cancer Society (DHP-37E; competitive renewal of DHP-37D). Leukemia cell differentiation: Epigenetic therapeutics. July 1, 1993 to June 30, 1994. Principal Investigator. Claudia J. Morgan, Ph.D., Co-Principal Investigator.

American Cancer Society (DHP-37C/D; competitive renewal of CH-396B). Leukemia cell differentiation: Epigenetic therapeutics. July 1, 1991 to June 30, 1993. Principal Investigator. Claudia J. Morgan, Ph.D., Co-Principal Investigator.

NATO Travel Grant (RG.86/0140). Inosine biosynthesis in tRNA: Role in regulating gene expression. April 1, 1986 to March 31, 1992. Project Coordinator. Henri Grosjean, Ph.D., Laboratoire D'Enzymologie, Centre National de la Recherche Scientifique, Gif-sur-Yvette, France, Co-Principal Investigator.

Environmental Protection Agency (R-814130-01; competitive renewal of R-810714). Promotion of carcinogenesis: Role of aberrant tRNA modification. March 8, 1989 to March 7, 1992. Principal Investigator.

American Cancer Society (CH-396B; competitive renewal of CH-396). Leukemia cell differentiation: Epigenetic therapeutics. July 1, 1989 to June 30, 1991. Principal Investigator.

National Cancer Institute (UO1-CA44971-01). Cooperative human tissue network. January 1, 1987 to December 31, 1990. Program Director. A 5-year competitive renewal of this project was funded at Ohio State with Kathryn P. Clausen, M.D., as Principal Investigator.

Jarrow Formulas. Early cancer detection method. February 1, 1989 to May 31, 1990. Co-Principal Investigator; Steven M. D'Ambrosio, Co-Principal Investigator.
Burroughs Wellcome Company. Purine analogue-induced cell differentiation and queuine hypomodification of tRNA. April 1, 1988 to August 31, 1989. Principal Investigator.

American Cancer Society (CH-396). Leukemia cell differentiation: Epigenetic therapeutics. July 1, 1987 to June 30, 1989. Principal Investigator.

Department of Defense (AFOSR-85-0003; competitive renewal of AFOSR-80-0283). Modulating transfer RNA anticodon modifications and biologic responses in human cells. October 15, 1984 to October 14, 1987. Principal Investigator.

Environmental Protection Agency (R-810714). Promotion of carcinogenesis: Role of aberrant tRNA modification. July 1, 1984 to June 30, 1987. Principal Investigator.

American Cancer Society—Ohio Division. tRNA transglycosylase in neoplastic transformation. October 15, 1980 to October 14, 1981. Principal Investigator.

Department of Defense (AFOSR-80-0283). Chemical carcinogen-induced changes in tRNA metabolism in human cells. October 1, 1980 to September 30, 1984. Principal Investigator.

Battelle Memorial Institute. Markers for selective chemotherapeutic testing *in vitro*. August 1, 1979 to July 31, 1980. Principal Investigator.

Milheim Foundation for Cancer Research. Experimental chemotherapy with tumor explants. July 1, 1979 to June 30, 1980. Principal Investigator.

FELLOWSHIPS & AWARDS:

National Defense Education Act Title IV Fellowship, 1970-73

NCI Individual Postdoctoral Fellowship, 1975-77

Young Investigator Research Award. Eli Lilly and Company, 1980-82

GRADUATE STUDENTS (PH.D. DEGREE): 4

GRADUATE STUDENTS (M.S. DEGREE): 2

POSTDOCTORAL RESEARCHERS: 2

ADDITIONAL RESEARCH TRAINING/SUPERVISION: 4

TEACHING ASSIGNMENTS:

Advanced Microbial Physiology

September, 1973 to May, 1974

Introduction to Medical Biochemistry

July 14, 1977 to August 23, 1977

Medical Biochemistry Laboratory

September 11, 1977 to December 17, 1977

Medical Biochemistry

October 8, 1979 to November 16, 1979

January 5, 1981 to February 20, 1981

January 4, 1982 to February 19, 1982

February 21, 1983 to April 1, 1983

February 28, 1984 to March 30, 1984

February 25, 1985 to March 29, 1985

February 3, 1986 to March 7, 1986

October 13, 1987 to November 2, 1987

November 3, 1988 to December 10, 1988
February 25, 1993 to March 11, 1993
March 11, 1994 to April 29, 1994
Biochemistry Program Research Colloquium
September 20, 1989 to December 1, 1989
September 19, 1990 to November 30, 1990
Biochemistry Program Student Seminar
January 3, 1990 to June 1, 1990
Biotechnology 1990, Celina High School
October 17, 1990
Neurochemistry 825
February 18, 1993 to March 18, 1993

COMMITTEE ASSIGNMENTS:

Medical Biochemistry Graduate Studies Committee, 1979-89
Committee Chair, 1982-89
University Hazardous Waste Disposal Committee, 1980-81
Institutional Biosafety Committee, 1980-83
College of Medicine Graduate Education Committee, 1982-85
Biochemistry Graduate Program Development Committee, 1983-84
Biochemistry Program Admissions Committee, 1983-84, 1986
Committee Chair, 1983-84, 1986
Clinical Chemistry Graduate Studies Committee, 1983-86
Radiobiology Search Committee, 1984
Medical Biochemistry Search Committee, 1984-85
Comprehensive Cancer Center Space Committee, 1985-94
Medical Radionuclide Committee, 1985-89
Molecular Genetics Search Committee, 1986
Biotechnology Advisory Committee, 1986-94
Medical Molecular Biology Program Committee, 1986-87
Ohio State Biochemistry Program, 1986, 1989-91, 1993-94
Director and Graduate Studies Committee Chair, 1989-91, 1993-94
Biotechnology Graduate Program Committee, 1987-88
University Hazardous and Radioactive Waste Committee, 1987-88
Medical Microbiology and Immunology Search Committee, 1987
Neurobiotechnology Search Committee, 1987-89
NCI Human Tissue Network Coordinating Committee, 1987-90
Medical Biochemistry/Neurology Search Committee, 1988
Rightmire Hall Remodelling Committee, 1988-89
Surgical Oncology Endowed Chair Search Committee, 1988-90
Medical Biochemistry Promotion and Tenure Committee, 1988
Advisory Committee for DNA Instrument Group, 1988-89
Botany/Biotechnology Search Committee, 1988-89
Medical Biotechnology Committee, 1989-90
Committee Chair, 1989-90
Veterans' Action Committee, 1990-92
College of Medicine Senate Caucus Committee, 1991-94
President's Veterans Task Force, 1991
Medical Biochemistry Promotion and Tenure Committee, 1991
Committee Chair, 1991
Medical Scientist Program Committee, 1992-94
American Cancer Society Study Section, 1992
College of Medicine "Med I" Committee, 1992-94

College of Medicine "Med I" Student Evaluation Committee, 1992-94
OSU Vice President's Diversity Training Task Force, 1993
OSU-CCF Research and Graduate Studies Committee, 1993-94
KSU Patent Advisory Committee, 1994-2001
Committee Chair, 1998-2001
KSU Research Compliance Coordinating Committee, 1994-98
Committee Chair, 1994-98
Council of Presidents' University Economic Impact Committee, 1995-96
Committee Chair, 1995
KSU Clinical Sciences' Vision Committee, 1995
Committee Facilitator, 1995
KSU Data Administration Task Force, 1995-97
U.S. Department of Health and Human Services' Advisory Committee on Long-Term
Health Effects of Phenoxy Herbicides, 1995-99
KSU Economic Impact Committee, 1997-98
Committee Chair, 1997-98

INVITED SYMPOSIA/CONFERENCE PRESENTATIONS:

"Alterations in tRNA Metabolism as Markers of Neoplastic Transformation." NATO Advanced Study Institute, Corfu Island, Greece. *Biochemical and Biological Markers of Neoplastic Transformation*. Dr. Prakash Chandra, Director. September 28 to October 10, 1981.

"Clinical Application of Urinary Nucleosides in Cancer." University of Texas M.D. Anderson Hospital and Tumor Institute, Houston, Texas. *Laboratory Testing in Cancer: Current Concepts and Applications*. Drs. Herbert A. Fritsche and José M. Trujillo, Directors. February 9 and 10, 1984.

"Inosine Biosynthesis in Transfer RNA and its Potential Role in Differentiated Lymphocyte Function." Northeastern University, Boston, Massachusetts. *Nucleosides and Lymphocytes*. Drs. Phyllis R. Strauss and Michael G. Goodman, Directors. October 12 to 14, 1984.

"Queueine Deficient tRNA and Neoplastic Progression." University of Erlangen-Nürnberg, Erlangen, West Germany. *Symposium on the Transfer-RNA Modification Queuosine*. Drs. Walter and Helga Kersten, Directors. June 1 to 4, 1985.

"Inosine Biosynthesis in the Anticodon of Transfer RNA." University of Umeå, Umeå, Sweden. *12th International Workshop on tRNA*. Drs. Kerstin Kjellin-Stråby and Glenn Björk, Directors. July 3 to 9, 1987.

"Changes in tRNA Anticodon Modification and Induction of Leukemia Cell Differentiation." University of Umeå, Umeå, Sweden. *Symposium on tRNA Modification*. Drs. Kerstin Kjellin-Stråby and Glenn Björk, Directors. July 9 to 12, 1987.

"U.S. Army Infantry Operations in Vietnam." Testimony to a committee of the National Academy of Sciences' Institute of Medicine, Irvine, California. *Health Effects in Vietnam Veterans of Exposure to Herbicides*. Dr. Michael A. Stoto, Organizer. February 8, 1993.

PATENTS:

R.W. Trewyn and S.M. D'Ambrosio. Early cancer detection method. Patent No. 4,687,733; August 18, 1987.

SCIENTIFIC RESEARCH ARTICLES :

Nakamura, K.D., Trewyn, R.W. and Parks, L.W. Purification and characterization of serine transhydroxymethylase from *Saccharomyces cerevisiae*. *Biochim. Biophys. Acta* 327: 328-335, 1973.

Trewyn, R.W., Nakamura, K.D., O'Connor, M.L. and Parks, L.W. An interaction between S-adenosyl-L-methionine and pyridoxal 5'-phosphate and its effect on *Saccharomyces cerevisiae*. *Biochim. Biophys. Acta* 327: 336-344, 1973.

Trewyn, R.W. and Kerr, S.J. The enzymatic synthesis of S-adenosyl-L-[2(n)³H]-homocysteine. *Anal. Biochem.* 82: 310-316, 1977.

Trewyn, R.W. and Kerr, S.J. Altered growth properties of Chinese hamster cells exposed to 1-methylguanine and 7-methylguanine. *Cancer Res.* 38: 2285-2289, 1978.

Trewyn, R.W., Kerr, S.J. and Lehman, J.M. Karyotype and tumorigenicity of 1-methyl-guanine-transformed Chinese hamster cells. *J. Natl. Cancer Inst.* 62: 633-638, 1979.

Trewyn, R.W. and Kerr, S.J. Cytotoxicity of N⁶-substituted adenosine analogues to cultured trophoblastic tumor cells. *Biochem. Pharmacol.* 28: 607-612, 1979.

Gwebu, E.T., Trewyn, R.W., Cornwell, D.G. and Panganamala, R.V. Vitamin E and the inhibition of platelet lipoxygenase. *Res. Commun. Chem. Path. Pharmacol.* 28: 361-376, 1980.

Trewyn, R.W. and Kerr, S.J. An improved rapid assay for S-adenosyl-L-homocysteine hydrolase. *J. Biochem. Biophys. Methods* 4: 299-307, 1981.

Karpen, C.W., Merola, A.J., Trewyn, R.W., Cornwell, D.G. and Panganamala, R.V. Modulation of platelet thromboxane A₂ and arterial prostacyclin by dietary vitamin E. *Prostaglandins* 22: 651-661, 1981.

Trewyn, R.W., Glaser, R., Kelly, D.R., Jackson, D.G., Graham, W.P. and Speicher, C.E. Elevated nucleoside excretion by patients with nasopharyngeal carcinoma: Preliminary diagnostic/prognostic evaluations. *Cancer* 49: 2513-2517, 1982.

Elliott, M.S. and Trewyn, R.W. Queuine hypomodification of tRNA induced by 7-methyl-guanine. *Biochem. Biophys. Res. Commun.* 104: 326-332, 1982.

Heldman, D.A., Grever, M.R. and Trewyn, R.W. Differential excretion of modified nucleosides in adult acute leukemia. *Blood* 61: 291-296, 1983.

Heldman, D.A., Grever, M.R., Speicher, C.E. and Trewyn, R.W. Urinary excretion of modified nucleosides in chronic myelogenous leukemia. *J. Lab. Clin. Med.* 101: 783-792, 1983.

Heldman, D.A., Grever, M.R., Miser, J.S. and Trewyn, R.W. Relationship of modified nucleoside excretion to disease status in childhood acute lymphoblastic leukemia. *J. Natl. Cancer Inst.* 71: 269-273, 1983.

Gama-Sosa, M.A., Slagel, V.A., Trewyn, R.W., Oxenhandler, R., Kuo, K.C., Gehrke, C.W. and Ehrlich, M. The 5-methylcytosine content of DNA from human tumors. *Nucleic Acids Res.* 11: 6883-6894, 1983.

Elliott, M.S. and Trewyn, R.W. Inosine biosynthesis in transfer RNA by an enzymatic insertion of hypoxanthine. *J. Biol. Chem.* 259: 2407-2410, 1984.

- Geisbuhler, T., Altschuld, R.A., Trewyn, R.W., Ansel, A.Z., Lamka, K. and Brierley, G.P. Adenine nucleotide metabolism and compartmentation in isolated adult rat heart cells. *Circ. Res.* 54: 536-546, 1984.
- Trewyn, R.W. and Gatz, H.B. Altered growth properties of normal human cells induced by phorbol 12,13-didecanoate. *In Vitro* 20: 409-415, 1984.
- Trewyn, R.W. Inosine biosynthesis in transfer RNA: A postulated role in immune regulation. *Med. Hypoth.* 13: 369-380, 1984.
- Elliott, M.S., Katze, J.R. and Trewyn, R.W. Relationship between a tumor promoter-induced decrease in queuine modification of transfer RNA in normal human cells and the expression of an altered cell phenotype. *Cancer Res.* 44: 3215-3219, 1984.
- Elliott, M.S., Trewyn, R.W. and Katze, J.R. Inhibition of queuine uptake in cultured human fibroblasts by phorbol 12,13-didecanoate. *Cancer Res.* 45: 1079-1085, 1985.
- Trewyn, R.W., Kretz, K.A., Utz, E.D., Patrick, D.E. and Muralidhar, G. Hematopoiesis and the inosine modification in transfer RNA. *Proc. Soc. Exp. Biol. Med.* 179: 497-503, 1985.
- Muralidhar, G. and Trewyn, R.W. Enhancement of the chemical transformation of Chinese hamster embryo cells *in vitro* by 7-methylguanine. *Cancer Res.* 47: 2440-2444, 1987.
- Kretz, K.A., Katze, J.R. and Trewyn, R.W. Guanine analog-induced differentiation of human promyelocytic leukemia cells and altered queuine modification of tRNA. *Mol. Cell. Biol.* 7: 3613-3619, 1987.
- Ochieng, J., Patrick, D.E., Utz, E.D. and Trewyn, R.W. Inhibition of phorbol ester-mediated phenotypic changes in cultured cells by hypoxanthine. *Carcinogenesis* 8: 1629-1633, 1987.
- Muralidhar, G., Utz, E.D., Elliott, M.S., Katze, J.R. and Trewyn, R.W. Identifying inhibitors of queuine modification of tRNA in cultured cells. *Anal. Biochem.* 171: 346-351, 1988.
- Muralidhar, G., Ochieng, J. and Trewyn, R.W. Altered queuine modification of transfer RNA involved in the *in vitro* transformation of Chinese hamster embryo cells. *Cancer Res.* 49: 7110-7114, 1989.
- Gibboney, D.S., French, B.T., Patrick, D.E. and Trewyn, R.W. 6-Ethylmercaptapurine-mediated growth inhibition of HL-60 cells *in vitro* irrespective of purine salvage. *Cancer Chemother. Pharmacol.* 25: 189-194, 1989.
- French, B.T., Patrick, D.E., Grever, M.R. and Trewyn, R.W. Differential effect of 6-ethylmercaptapurine on *c-myc* expression in wild-type and HGPRT-deficient HL-60 cells. *Cancer Chemother. Pharmacol.* 27: 171-177, 1990.
- Milo, G.E., Kurian, P., Shuler, C., French, B.T., Noyes, I., Hollering, J., Mannix, D.G., Sital, N., Schuller, D. and Trewyn, R.W. Nontumorigenic squamous cell carcinoma line converted to tumorigenicity with methyl methanesulfonate without activation of H-*ras* or *myc*. *Proc. Natl. Acad. Sci. U.S.A.* 87: 1268-1272, 1990.
- Shuler, C., Kurian, P., French, B.T., Noyes, I., Sital, N., Hollering, J., Trewyn, R.W., Schuller, D. and Milo, G.E. Noncorrelative *c-myc* and *ras* oncogene expression in squamous cell carcinoma cells with tumorigenic potential. *Teratog. Carcinog. Mutagen.* 10: 53-65, 1990.

French, B.T. and Trewyn, R.W. Modification of the anticodon wobble position of tRNA^{Ala} *in vitro* does not require 5' or 3' processing. *Gene* 96: 301-304, 1990.

French, B.T., Patrick, D.E., Grever, M.R. and Trewyn, R.W. Queuine, a tRNA anticodon wobble base, maintains the proliferative and pluripotent potential of HL-60 cells in the presence of the differentiating agent 6-thioguanine. *Proc. Natl. Acad. Sci. U.S.A.* 88: 370-374, 1991.

D'Ambrosio, S.M., Gibson-D'Ambrosio, R.E. and Trewyn, R.W. An enzyme-linked immunosorbent assay (ELISA) for the detection and quantitation of the tumor marker 1-methylinosine in human urine. *Clin. Chem. Acta* 199: 119-128, 1991.

Gündüz, U., Elliott, M.S., Seubert, P.H., Houghton, J.A., Houghton, P.J., Trewyn, R.W. and Katze, J.R. Absence of tRNA-guanine transglycosylase in a human colon adeno-carcinoma cell line. *Biochim. Biophys. Acta* 1139: 229-238, 1992.

Utz, E.D., Siravo-Sagraves, G.M., Trewyn, R.W. and Morgan, C.J. Detection of human tRNAs with antisense oligonucleotides. *Anal. Biochem.* 216: 110-117, 1994.

Morgan, C.J., Chawdry, R.N., Smith, A., Siravo-Sagraves, G.M., and Trewyn, R.W. 6-Thioguanine-induced growth arrest in 6-mercaptopurine-resistant human leukemia cells. *Cancer Res.* 54: 5387-5393, 1994.

Morgan, C.J., Merrill, F.L., and Trewyn, R.W. Defective tRNA queuine modification in C3H10t1/2 murine fibroblasts transfected with oncogenic *ras*. *Cancer Res.* 56: 594-598, 1996.

Auxilien, S., Crain, P., Trewyn, R.W., and Grosjean, H. Mechanism, specificity and general properties of the yeast enzyme catalyzing the formation of inosine-34 in the anticodon of transfer RNA. *J. Mol. Biol.* 262: 437-458, 1996.

BOOK CHAPTERS:

Trewyn R.W. and Kerr, S.J. Regulation of tRNA methyltransferase activity in onco-development systems. *In: Onco-Developmental Gene Expression* (W.H. Fishman and S. Sell, eds.), pp. 101-106, Academic Press, New York, 1976.

Milo, G.E., Trewyn, R.W., Tejwani, R. and Oldham, J.W. Intertissue variation in benzo(a)pyrene metabolism by human skin, lung, and liver *in vitro*. *In: Toxic Hazards in Aviation*, AGARD Publication 309, pp. B7 1-9, NATO, Neuilly-sur-Seine, France, 1981.

Tejwani, R., Trewyn, R.W. and Milo, G.E. Kinetics of movement of benzo(a)pyrene into transformable and non-transformable human diploid cells. *In: Chemical Analysis and Biological Fate: Polynuclear Aromatic Hydrocarbons* (M. Cooke and A.J. Dennis, eds.), pp. 97-107, Battelle Press, Columbus, 1981.

Milo, G.E. and Trewyn, R.W. *In vitro* transformation of cultured human diploid fibroblasts. *In: Nitrosamines and Human Cancer* (P.N. Magee, ed.), Banbury Report 12, pp. 3-13, Cold Spring Harbor Laboratory, 1982.

Trewyn, R.W., Elliott, M.S., Glaser, R. and Grever, M.R. Alterations in tRNA metabolism as markers of neoplastic transformation. *In: Biochemical and Biological Markers of Neoplastic Transformation* (P. Chandra, ed.), pp. 263-276, Plenum Publishing Corp., New York, 1983.

Davakis, L.A. and Trewyn, R.W. Evaluating tumor promoter activity *in vitro* with human diploid fibroblasts. *In: Polynuclear Aromatic Hydrocarbons: Formation, Metabolism, and Measurement* (M. Cooke and A.J. Dennis, eds.), pp. 393-404, Battelle Press, 1983.

Oldham, J.W., Trewyn, R.W., Gerard, J.A. and Milo, G.E. Metabolism of benzo(a)pyrene by human liver cells *in vitro*. *In: Polynuclear Aromatic Hydrocarbons: Formation, Metabolism, and Measurement* (M. Cooke and A.J. Dennis, eds.), pp. 971-982, Battelle Press, 1983.

Grosjean, H., Haumont, E., Droogmans, L., Carbon, P., Fournier, M., de Henau, S., Doi, T., Keith, G., Gangloff, J., Kretz, K.A. and Trewyn, R.W. A novel approach to the biosynthesis of modified nucleosides in the anticodon loops of eukaryotic transfer RNAs. *In: Biophosphates and Their Analogues - Synthesis, Structure, Metabolism and Activity* (K.S. Bruzik and W.J. Stec, eds.), pp. 355-378, Elsevier, Amsterdam, 1987.

Yamasaki, E.F., Wani, A.A. and Trewyn, R.W. Solid phase immunoassay for determining the inosine content in transfer RNA. *In: Chromatography and Modification of Nucleosides: Biological Roles and Function of Modification* (C.W. Gehrke and K.C. Kuo, eds.), pp. 125-142, Elsevier, Amsterdam, 1990.

Kretz, K.A., Trewyn, R.W., Keith, G. and Grosjean, H. Site directed replacement of nucleotides in the anticodon loop of tRNA: Application to the study of inosine biosynthesis in yeast tRNA^{Ala}. *In: Chromatography and Modification of Nucleosides: Biological Roles and Function of Modification* (C.W. Gehrke and K.C. Kuo, eds.), pp. 143-172, Elsevier, Amsterdam, 1990.

REVIEW ARTICLES:

Trewyn, R.W., Lehman, J.M. and Kerr, S.J. Cell transformation by exogenous methylated purines. *Adv. Enz. Reg.* 16: 335-345, 1978.

Trewyn, R.W., Heldman, D.A. and Grever, M.R. Clinical application of urinary nucleosides in cancer. *Cancer Bull.* 37: 82-87, 1985.

Trewyn, R.W. and Grever, M.R. Urinary nucleosides in leukemia: Laboratory and clinical applications. *CRC Critical Rev. Clin. Lab. Sci.* 24: 71-93, 1986.

SCIENTIFIC ABSTRACTS:

Nakamura, K.D., Trewyn, R.W. and Parks, L.W. Methyl group formation in methionine biosynthesis by *Saccharomyces cerevisiae*. *Proc. Amer. Soc. Microbiol.*, 1972.

Trewyn, R.W. and Kerr, S.J. Modulation of tRNA modification in cultured cells by extrinsic agents. *Fed. Proc.* 35: 1674, 1976.

Trewyn, R.W. and Kerr, S.J. S-Adenosyl-L-homocysteine hydrolase from rat liver. *Fed. Proc.* 36: 718, 1977.

Trewyn, R.W. and Kerr, S.J. Cytotoxicity of N⁶-methyladenosine to cultured choriocarcinoma cells. *Proc. Amer. Assoc. Cancer Res.* 18: 21, 1977.

Trewyn, R.W. and Kerr, S.J. S-Adenosyl-L-homocysteine hydrolase: Precursor inhibition by S-adenosyl-L-methionine. *Internatl. Congress Biochem.* 11: 253, 1979.

- Allred, L.E., Trewyn, R.W. and Milo, G.E. Establishment of pure epithelial human lung cells and fibroblast-like epithelial derived cells *in vitro*. *In Vitro* 16: 352, 1980.
- Flora, J.L., Trewyn, R.W. and Matthews, R.H. Cyclic nucleotides and growth properties of cultured Chinese hamster cells exposed to methylated purines. *Fed. Proc.* 39: 1952, 1980.
- Tejwani, R., Trewyn, R.W. and Milo, G.E.. Benzo(a)pyrene metabolism by transformable human skin fibroblasts. *Fed. Proc.* 39: 2091, 1980.
- Heldman, D.A., Grever, M.R. and Trewyn, R.W. Urinary excretion of modified nucleosides in chronic myelogenous leukemia. *Proc. Amer. Soc. Clin. Oncology* 1: 6, 1982.
- Trewyn, R.W., Gatz, H.B., Davakis, L.A. and Elliott, M.S. Putative tumor promoter response in cultured human diploid cells. *Proc. Amer. Assoc. Cancer Res.* 23: 103, 1982.
- Heldman, D.A., Grever, M.R., Miser, J.S. and Trewyn, R.W. Relationship of modified nucleoside excretion to disease status in childhood acute lymphoblastic leukemia. *Blood* 60: 128a, 1982.
- Heldman, D.A., Grever, M.R. and Trewyn, R.W. Differential excretion of modified nucleosides in adult acute leukemia. *Blood* 60: 147a, 1982.
- Lutter, K.S., Kross, J., Grever, M.R. and Trewyn, R.W. Elevated excretion of modified nucleosides in non-Hodgkin's lymphomas. *Blood* 60: 147a, 1982.
- Elliott, M.S. and Trewyn, R.W. Enzymatic insertion of hypoxanthine into transfer RNA. *Fed. Proc.* 42: 2149, 1983.
- Kretz, K.A., Elliott, M.S., Utz, E.D. and Trewyn, R.W. Inosine biosynthesis in transfer RNA: A postulated defect in immunodeficiency diseases and leukemia. *Proc. Amer. Assoc. Cancer Res.* 25: 23, 1984.
- Elliott, M.S., Trewyn, R.W. and Katze, J.R. Phorbol ester inhibition of queuine uptake by human fibroblasts in culture. *Fed. Proc.* 43: 1780, 1984.
- Muralidhar, G. and Trewyn, R.W. Transformation of Chinese hamster cells by agents inducing queuine hypomodification of transfer RNA. *Proc. Amer. Assoc. Cancer Res.* 26: 130, 1985.
- Kretz, K.A., Trewyn, R.W., Keith, G. and Grosjean, G. Anticodon reconstruction of inosine-containing transfer RNA species. *Fed. Proc.* 45: 1701, 1986.
- Muralidhar, G., Ochieng, J. and Trewyn, R.W. Methylated purine-mediated changes in transfer RNA modification: Biological implications. *Fed. Proc.* 45: 1895, 1986.
- Ochieng, J., Patrick, D.E., Utz, E.D. and Trewyn, R.W. Inhibition of phorbol ester-mediated phenotypic changes in cultured cells by hypoxanthine. *Proc. Amer. Assoc. Cancer Res.* 28: 139, 1987.
- Grever, M.R. and Trewyn, R.W. Deoxycoformycin (dCF) reduces urinary 1-methylinosine excretion *in vivo*. *Blood* 70: 229a, 1987.
- French, B.T., Yamasaki, E.F., Grever, M.R., Grosjean, H. and Trewyn, R.W. Influence of tRNA content and modification on the translation of synthetic codons *in vivo*. *J. Cell. Biochem.* 12D: 39, 1988.

Grever, M.R., Kraut, E.H., Supko, J.G., Trewyn, R.W., Staubus, A.E. and Malspeis, L. Merbarone (NSC 336628) enhances the urinary excretion of uric acid of cancer patients. *Proc. Amer. Assoc. Cancer Res.* 29: 189, 1988.

Muralidhar, G., Ochieng, J., French, B.T. and Trewyn, R.W. Altered queuine modification of tRNA involved in promotion of carcinogenesis. *Proc. Amer. Assoc. Cancer Res.* 29: 158, 1988.

French, B.T., Patrick, D.E., Grever, M.R. and Trewyn, R.W. Differentiation of HL-60 cells down the monocytic pathway by 6-ethylmercaptapurine. *Proc. Amer. Assoc. Cancer Res.* 30: 426, 1989.

Trewyn, R.W., Morgan, C.J. and French, B.T. Changes in queuine modification of tRNA affecting gene expression and cell growth. *J. Cell. Biochem.* 14C: 309, 1990.

Morgan, C.J., Ochieng, J. and Trewyn, R.W. Translational control of gene expression in H-*ras* transformed cells by queuine modification of transfer RNA. *FASEB J.* 5: 1169, 1991.

Morgan, C.J., Siravo-Sagraves, G.M., French, B.T., and Trewyn, R.W. Growth inhibition in human leukemia cell lines by a tRNA-mediated mechanism. *J. Cell. Biochem.* 16B: 155, 1992.

Auxilien, S., Trewyn, R.W., and Grosjean, H. L'inosine-34 des ARNt se forme par une tranformation chimique (probablement une desamination oxydative) de l'adenine-34. *Arch. Internatl. Physiol., Biochim. Biophys.* 101: B2, 1993.

Morgan, C.J., Chawdry, R.N., Smith, A., Siravo-Sagraves, G.M., and Trewyn, R.W. 6-Thioguanine-induced growth arrest in 6-mercaptopurine-resistant human leukemia cells. *Proc. Amer. Assoc. Cancer Res.* 35: 388, 1994.

Morgan, C.J., Merrill, F.L., and Trewyn, R.W. Expression of mutant p53 protein in cells with defective tRNA-queuine modification. *Proc. Amer. Assoc. Cancer Res.* 36: 523, 1995.